

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
ASSISTANT SECRETARY FOR HOUSING-FEDERAL HOUSING COMMISSIONER

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MATERIALS RELEASE NO. 1026d

TO: DIRECTORS, HOUSING DIVISION
DIRECTORS, MULTIFAMILY DIVISION
DIRECTORS, SINGLE FAMILY DIVISION

ISSUE DATE: February 19, 1997

REVIEW DATE: February 19, 2000

SUBJECT: 1. Product DennyBoard® Laminated Kraft Paperboard

2. Name and Address of Manufacturer Simplex Products Division
P.O. Box 10
Adrian, MI 49221

Data on the nonstandard product described herein have been reviewed by the Department of Housing and Urban Development and determination has been made that it is considered suitable from a technical standpoint for the use indicated herein. This Release does not purport to establish a comparative quality or value rating for this product as compared to standard products normally used in the same manner.

This Materials Release cannot be used as an indication of endorsement, approval or acceptance by HUD of the described product, and any statement or representation, however made, indicating such approval, endorsement or acceptance by HUD is unauthorized. See Code 18, U.S.C. 709.

Any reproduction of this Release must be in its entirety.

USE: Wall sheathing and non-structural roof underlayment for concrete and clay roofing tiles.

DESCRIPTION:

DennyBoard® sheathing and non-structural roof underlayment consists of laminated kraft paperboard covered with aluminum foil or polyethylene, on one or both surfaces.

REQUIREMENTS:

The laminated kraft paperboard shall be in compliance with Table 1.

TABLE 1 - Requirements for DennyBoard® Laminated Kraft Paperboard

Physical Properties	Values			Test Method
	Nonstructural Grade 6290 (Green)	Structural 16" o.c. Grade 62125 (Red)	Structural 24" o.c. Grade 62140 (Blue)	
Thickness, in.	0.078±.005	0.115±.005	0.137±.007	ASTM C-209
Mullen Burst, psi, min.	396.0	500.0	695.0	ASTM D-2529
Vapor Tran., perms, max.	0.1	0.1	0.1	ASTM E-96
Water Absorp, % max.	15.0	15.0	15.0	ASTM C-209
Tensile strength Parallel to surface, psi, min. MD*	5237	5280	5790	ASTM C-209
CD**	1638	2020	2090	
Tensile Strength Perpendicular to surface, psi, min.	1800	2510	2310	ASTM C-209
Linear expansion % max.	0.5	0.5	0.5	ASTM D-1037
Modulus of Rupture, psi, min.				ASTM C-209
MD*	4110	5070	4070	
CD**	1807	1990	2010	

* Machine Direction

** Cross Machine Direction

TABLE 2 - Fastener Spacing

	Thickness of Board	Allowable ¹ Shear Resistance	Stud Spacing	Minimum Fastener ²	Fastener Spacing
Grade 6290 Green	Thickness 0.073 min.	corner ³ bracing required	24" o.c. max.	16 ga 7/16" crown by 1-1/4" leg staples or 11 ga 1-1/4" roofing nails	all 6" o.c. at edges & 12" o.c. at intermediate supports
Grade 62125 Red	0.110 min.	130 plf ³	16" o.c.	16 ga 7/16" crown by 1-1/4" leg staples	3" o.c. edge 6" o.c. intermediate supports
		183 plf ³	16" o.c.	11 ga 1-1/4" roofing nails	3" o.c. edge 6" o.c. intermediate supports
Grade 62140 Blue	0.130 min.	158 plf ³	24" o.c.	16 ga 7/16" crown by 1-1/4" leg staples	3" o.c. edge and 3" o.c. intermediate support
		175 plf ³	24" o.c.	11 ga 1-1/4" roofing nails	3" o.c. edge and 3" o.c. intermediate support

1. Shear resistance allowance shown here are applicable only when horizontal shear forces caused by wind and earthquake are calculated. The panels shall extend the full wall height and continuously span at least three studs.
2. All fasteners are to be galvanized.
3. Joints may be butted or lapped 3/4" min. with a single row of fasteners.

INSTALLATION:

1. Panels shall be installed according to the manufacturer's instructions and Table 2.
2. Panels used as non-structural underlayment under 1" x 4" spaced sheathing roof construction shall have as a minimum 2" horizontal and 1-1/2" vertical overlap. Panels used under sheathing supporting tiles shall have the polyethylene face turned up.
3. Panels shall be installed with the long dimension vertical.
4. All nails and staples shall be driven flush with the surface. Nail heads and staple crowns shall not cut the surface of the panel.
5. Joints shall be butted or lapped, and shall occur over studs, plates, or solid blocking. Cut or trim with saw, knife, or router.
6. DennyBoard® laminated kraft paperboard panels shall not be used as a nail base. Nail siding to the studs or to furring strips and studs.
7. DennyBoard® laminated kraft paperboard panels, with polyethylene on one side, can be used for stucco applications without line wires or sheathing paper. The polyethylene surface shall be placed towards the stucco. Sheathing paper shall be used when DennyBoard® laminated kraft paperboard panels are covered with aluminum foil on both sides. In all cases, stucco application shall be in strict compliance with ASTM C 926.
8. A vapor barrier of 0.1 perm or less shall be provided on the warm side of the wall covered with DennyBoard®, or else a vapor venting system to the outside shall be provided.
9. Panels may be used in fire rated exterior wall assemblies provided that they comply with the fire requirements of the local building code.
10. Minimum fastening for panels in non-structural applications, shall be 11 gauge by 1-1/4" long galvanized roofing nails or 16 gauge staples with a 7/16" minimum crown length and a 1-1/4" long leg, placed 6" o.c. at the panel edges and 12" o.c. at the intermediate supports. Corner bracing shall be provided with non-structural applications of wall sheathing for stud spacing up to 24" o.c. max.

CERTIFICATION:

Simplex Products Division certifies that DennyBoard® sheathing, produced in conformance to this Materials Release (MR), is in compliance with a validation program at RADCO, Inc. in accordance with the Code of Federal Regulations, 24 CFR 200.935. RADCO shall inspect the manufacturer's facility every year at the plant to assure that the initially accepted quality control procedures are being followed. Sufficient samples of this product shall be selected and tested each year to validate the manufacturer's conformance to the requirements of this MR. Each piece of sheathing certified as conforming to this MR shall be labeled with the following information:

1. The RADCO validation mark
2. The manufacturer's name
3. The manufacturer's conformance to this MR
4. Span rating

WARRANTY:

Simplex Products Division warrants DennyBoard® sheathing for four (4) years, under normal use, against defects or poor performance. Should any defect or poor performance occur, Simplex Products Division will make a pro rata allowance for the replacement of the defective product.

MANUFACTURER'S RESPONSIBILITIES:

Issuance of this Materials Release (MR) commits the manufacturer to fulfill, as a minimum, the following:

1. Produce, label and certify the material, product or system in strict accordance with the terms of this MR.
2. Provide necessary corrective action in a timely manner for all cases of justified complaint, poor performance or failure reported by HUD.
3. When requested, provide the Office of Consumer and Regulatory Affairs, HUD Headquarters, with a representative list of properties, in which the material, product or system has been used, including complete addresses or descriptions of locations and dates of installation.
4. Inform HUD in advance of changes in production facilities, methods, design of the product, company name, ownership or mailing address.

EVALUATION:

This MR shall be valid for a period of three years from the date of initial issuance or most recent renewal or revision, whichever is later. The holder of this MR shall apply for a renewal or revision 90 days prior to the Review Date printed on this MR. Submittals for renewal or revision shall be sent to HUD Headquarters. Appropriate User Fee shall be sent to:

U. S. Department of Housing and Urban Development
Technical Suitability of Products Fees
P. O. Box 954199
St. Louis, MO 63195-4199

The holder of this MR may apply for revision at any time prior to the Review Date. Minor revision may be in the form of a supplement to the MR.

If the Department determines that a proposed renewal or supplement constitutes a revision, the appropriate User Fee for a revision will need to be submitted in accordance with Code of Federal Regulations 24 CFR 200.934, "User Fee System for the Technical Suitability of Products Program," and current User Fee Schedule.

CANCELLATION:

Failure to apply for a renewal or revision shall constitute a basis for cancellation of this MR. HUD will notify the manufacturer that the MR may be canceled when:

1. conditions under which the document was issued have changed so as to affect production of, or to compromise the integrity of the accepted material, product, or system,
2. the manufacturer has changed its organizational form without notifying HUD, or
3. the manufacturer has not complied with responsibilities it assumed as a condition of HUD's acceptance.

However, before cancellation, HUD will give the manufacturer a written notice of the specific reasons for cancellation, and the opportunity to present views on why the MR should not be canceled. No refund of fees will be made on a canceled document.

This Materials Release is issued solely for the captioned firm,
and is not transferable to any person or successor entity.
